Table E-1 **National Grid Electric DSM Funding Sources in 2019 by Sector** \$(000)

			ojections by Sector	o <u>r</u> Commercial &	
(1)	Projected Budget (from E-2):	Income Eligible Residential \$16,372.57	Eligible Residential \$45,677.83	Industrial \$49,394.83	Total \$111,445.24
	Sources of Other Funding:				
(2)	Projected DSM Commitments at Year-End 2018:	\$0.00	\$0.00	\$0.00	\$0.00
(3)	Projected Year-End 2018 Fund Balance and Interest:	\$0.00	(\$1,789.61)	\$5,957.77	\$4,168.15
(4)	Projected FCM Payments from ISO-NE:	\$727.20	\$8,860.50	\$13,997.40	\$23,585.08
(5)	Total Other Funding:	\$727.20	\$7,070.89	\$19,955.17	\$27,753.23
(6)	Customer Funding Required:	\$15,645.37	\$38,606.95	\$29,439.67	\$83,692.0
(7)	Forecasted kWh Sales:	223,309,451	2,720,911,292	4,298,339,149	7,242,559,891
(8)	Energy Efficiency Program charge per kWh , excluding uncollectible recovery:				\$0.01155
(9)	Proposed System Reliability Factor per kWh, excluding uncollectible recovery:				-\$0.00002
(10)	Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01153
(11)	Currently Effective Uncollectible Rate				1.30%
(12)	Energy Efficiency Program charge per kWh, including uncollectible recovery:				\$0.01168
(13)	Currently Effective EE Charge				\$0.00972
(14)	Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				\$0.00196

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales and RIIB costs allocated to C&I sector.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2018.

 (3) Fund balance projections include projected revenue and spend through year end with Low Income sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2).
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (11) Proposed System Reliability Factor is from the 2019 System Reliability Procurement Plan. Charge reflects projected year-end 2018 fund balance.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (13) Line (12)

Table E-2 National Grid 2019 Electric Energy Efficiency Program Budget (\$000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Technical Assistance & Training	Evaluation & Market Research	Shareholder Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	\$67.8	\$2.5	\$449.4	\$301.4	\$38.3		\$859.4
ENERGY STAR® HVAC	\$89.0	\$108.3	\$1,899.7	\$556.6	\$26.3		\$2,679.9
EnergyWise	\$445.9	\$414.2	\$13,824.9	\$1,392.9	\$137.1		\$16,215.0
EnergyWise Multifamily	\$107.0	\$43.8	\$2,150.0	\$721.0	\$84.9		\$3,106.7
ENERGY STAR® Lighting	\$406.4	\$557.9	\$12,436.9	\$596.0	\$71.5		\$14,068.7
Residential Consumer Products	\$90.1	\$567.8	\$614.6	\$709.8	\$15.5		\$1,997.8
Home Energy Reports	\$103.6	\$10.9	\$2,501.2	\$10.2	\$19.6		\$2,645.6
Residential ConnectedSolutions	\$10.3	\$10.3	\$215.8	\$113.8	\$0.0		\$350.0
Energy Efficiency Education Programs	\$0.0	\$40.0	\$0.0	\$0.0	\$0.0		\$40.0
Residential Pilots	\$43.4	\$24.5	\$104.1	\$50.8	\$0.0		\$222.7
Community Based Initiatives - Residential	\$6.2	\$56.3	\$59.1	\$0.0	\$0.0		\$121.5
Comprehensive Marketing - Residential	\$5.7	\$550.8	\$0.0	\$0.0	\$0.0		\$556.5
Residential Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,114.6	\$2,114.6
Subtotal - Non-Income Eligible Residential	\$1,375.4	\$2,387.2	\$34,255.7	\$4,452.4	\$393.2	\$2,114.6	\$44,978.4
Income Eligible Residential		•					•
Single Family - Income Eligible Services	\$376.1	\$129.0	\$9,489.0	\$1,796.5	\$204.4		\$11,995.0
Income Eligible Multifamily	\$118.7	\$9.4	\$2,782.3	\$525.3	\$107.6		\$3,543.2
Income Eligible Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$776.9	\$776.9
Subtotal - Income Eligible Residential	\$494.8	\$138.4	\$12,271.3	\$2,321.8	\$312.0	\$776.9	\$16,315.2
Commercial & Industrial							
Large Commercial New Construction	\$295.9	\$377.2	\$3,095.7	\$1,312.3	\$133.7		\$5,214.8
Large Commercial Retrofit	\$1,231.8	\$287.8	\$18,311.3	\$6,718.45	\$680.9		\$27,230.2
Small Business Direct Install	\$342.1	\$356.4	\$5,350.0	\$479.7	\$372.3		\$6,900.5
Commercial ConnectedSolutions	\$7.9	\$1.3	\$1,400.0	\$227.9	\$0.0		\$1,637.1
Commercial Pilots	\$19.4	\$30.0	\$87.5	\$61.0	\$0.0		\$197.9
Community Based Initiatives - C&I	\$1.7	\$18.8	\$19.7	\$0.0	\$0.0		\$40.1
Finance Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
RI Infrastructure Bank	\$0.0	\$0.0	\$5,000.0	\$0.0	\$0.0		\$5,000.0
Commercial & Industrial Shareholder Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,069.3	\$2,069.3
Subtotal - Commercial & Industrial	\$1,898.9	\$1,071.4	\$33,264.1	\$8,799.4	\$1,186.9	\$2,069.3	\$48,289.9
Regulatory							
OER	\$818.4	\$0.0	\$0.0	\$0.0	\$225.0		\$1,043.4
EERMC	\$818.4	\$0.0	\$0.0	\$0.0	\$0.0	40.0	\$818.4
Subtotal - Regulatory	\$1,636.7	\$0.0	\$0.0	\$0.0	\$225.0	\$0.0	\$1,861.7
Grand Total	\$5,405.8	\$3,597.0	\$79,791.1	\$15,573.5	\$2,117.1	\$4,960.7	\$111,445.2
System Reliability Procurement							\$459.3

Notes:

- (1) 2018 Large Commercial Retrofit Commitments (\$000):
- \$3,000.0
- $(2) \ For more information on Finance Costs, please refer to the 2019 \ C\&I \ Program \ Description, \ Attachment \ 2.$
- $(3) OER \ and \ EERMC \ total \ 2.0\% \ of \ customers' \ EE \ Program \ Charge \ collected \ on \ Table \ E-1, minus \ 2\%.$
- (4) System Reliability funds are included for illustrative purposes. They are part of the 2019 System Reliability Procurement Report, filed as a separate docket.

Table E-3 National Grid Derivation of the 2019 Spending and Implementation Budgets (\$000)

	Proposed 2018 Budget From E-2	Commitments	Regulatory Costs	Shareholder Incentive	Eligible Sector Spending Budget for Shareholder Incentive on E-9	Implementation Expenses for Cost- Effectiveness on E-5
Non-Income Eligible Residential						
Residential New Construction	\$859.4					\$859.4
ENERGY STAR® HVAC	\$2,679.9					\$2,679.9
EnergyWise	\$16,215.0					\$16,215.0
EnergyWise Multifamily	\$3,106.7					\$3,106.7
ENERGY STAR® Lighting	\$14,068.7					\$14,068.7
Residential Consumer Products	\$1,997.8					\$1,997.8
Home Energy Reports	\$2,645.6					\$2,645.6
Residential ConnectedSolutions	\$350.0					\$350.0
Energy Efficiency Education Programs	\$40.0					\$40.0
Residential Pilots	\$222.7					\$222.7
Community Based Initiatives - Residential	\$121.5					\$121.5
Comprehensive Marketing - Residential	\$556.5					\$556.5
Residential Shareholder Incentive	\$2,114.6			\$2,114.6		\$0.0
Subtotal - Non-Income Eligible Residential	\$44,978.4	\$0.0	\$0.0	\$2,114.6	\$42,291.1	\$42,863.9
Income Eligible Residential						
Single Family - Income Eligible Services	\$11,995.0					\$11,995.0
Income Eligible Multifamily	\$3,543.2					\$3,543.2
Income Eligible Shareholder Incentive	\$776.9			\$776.9		\$0.0
Subtotal - Income Eligible Residential	\$16,315.2	\$0.0	\$0.0	\$776.9	\$15,538.3	\$15,538.3
Commercial & Industrial						
Large Commercial New Construction	\$5,214.8	\$0.0				\$5,214.8
Large Commercial Retrofit	\$27,230.2	\$3,000.0				\$24,230.2
Small Business Direct Install	\$6,900.5	\$0.0				\$6,900.5
Commercial ConnectedSolutions	\$1,637.1					\$1,637.1
Commercial Pilots	\$197.9					\$197.9
Community Based Initiatives - C&I	\$40.1					\$40.1
Finance Costs	\$0.0					\$0.0
RI Infrastructure Bank	\$5,000.0					\$5,000.0
Commercial & Industrial Shareholder Incentive	\$2,069.3			\$2,069.3		\$0.0
Subtotal - Commercial & Industrial	\$48,289.9	\$3,000.0	\$0.0	\$2,069.3	\$41,385.6	\$43,220.6
Regulatory						
OER	\$1,043.4		\$1,043.4			\$1,043.4
EERMC	\$818.4		\$818.4			\$818.4
Subtotal - Regulatory	\$1,861.7	\$0.0	\$1,861.7	\$0.0	\$0.0	\$1,861.7
Grand Total	\$111,445.2	\$3,000.0	\$1,861.7	\$4,960.7	\$99,215.0	\$103,484.5

Notes

- $(1) \ \ Spending \ budget = Total \ Budget \ from \ E-2 \ minus \ commitments, \ regulatory \ costs, \ pilots, \ Demand \ Response, \ and \ shareholder \ incentive.$
- (2) Implementation Expenses = Total Budget from E-2 minus commitments and shareholder incentive.

Table E-4 National Grid Proposed 2019 Budget Compared to Approved 2017 Budget (\$000)

	Proposed Implementation Budget 2019	Approved Implementation Budget 2018	Difference
Non-Income Eligible Residential			
Residential New Construction	\$859.4	\$764.6	\$94.8
ENERGY STAR® HVAC	\$2,679.9	\$2,206.6	\$473.3
EnergyWise	\$16,215.0	\$14,916.3	\$1,298.8
EnergyWise Multifamily	\$3,106.7	\$3,062.6	\$44.1
ENERGY STAR® Lighting	\$14,068.7	\$6,768.6	\$7,300.1
Residential Consumer Products	\$1,997.8	\$1,831.1	\$166.6
Home Energy Reports	\$2,645.6	\$2,629.3	\$16.3
Residential ConnectedSolutions	\$350.0	N/A	N/A
Energy Efficiency Education Programs	\$40.0	\$40.0	\$0.0
Residential Pilots	\$222.7	\$922.6	-\$699.9
Community Based Initiatives - Residential	\$121.5	\$163.0	-\$41.5
Comprehensive Marketing - Residential	\$556.5	\$556.7	-\$0.2
Subtotal - Non-Income Eligible Residential	\$42,863.9	\$33,861.5	\$9,002.4
Income Eligible Residential			
Single Family - Income Eligible Services	\$11,995.0	\$9,329.3	\$2,665.7
Income Eligible Multifamily	\$3,543.2	\$2,557.4	\$985.9
Subtotal - Income Eligible Residential	\$15,538.3	\$11,886.7	\$3,651.6
Commercial & Industrial			
Large Commercial New Construction	\$5,214.8	\$6,111.7	-\$897.0
Large Commercial Retrofit	\$24,230.2	\$24,030.7	\$199.5
Small Business Direct Install	\$6,900.5	\$6,924.5	-\$24.0
Commercial ConnectedSolutions	\$1,637.1	N/A	N/A
Community Based Initiatives - C&I	\$40.1	\$40.9	-\$0.8
Commercial Pilots	\$197.9	\$993.8	-\$795.9
Finance Costs	\$0.0	\$0.0	\$0.0
RI Infrastructure Bank	\$5,000.0	\$5,000.0	\$0.0
Subtotal Commercial & Industrial	\$43,220.6	\$43,101.6	\$119.0
Regulatory			
EERMC	\$818.4	\$686.1	\$132.3
OER	\$1,043.4	\$686.1	\$357.3
Subtotal Regulatory	\$1,861.7	\$1,372.1	\$489.6
TOTAL IMPLEMENTATION BUDGET	\$103,484.5	\$90,221.9	\$13,262.6
OTHER EXPENSE ITEMS			
Commitments	\$3,000.0	\$0.0	\$3,000.0
Company Incentive	\$4,960.7	\$4,346.7	\$614.1
Subtotal - Other Expense Items	\$7,960.7	\$4,346.7	\$3,614.1
TOTAL BUDGET	\$111,445.2	\$94,568.6	\$16,876.6

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table E-3

Table E-5 National Grid Calculation of 2019 Program Year Cost-Effectiveness All Dollar Values in (\$000)

	RI Test	m . 1		Program	G .	G!		.07.10.41
	Benefit/	Total	In	nplementation	Customer	Si	hareholder	¢/Lifetime
	Cost ¹	Benefit		Expenses ²	Contribution		Incentive	kWh
Non-Income Eligible Residential								
Residential New Construction	3.69	\$ 4,742.7	\$	859.4	\$ 			8.4
ENERGY STAR® HVAC	3.62	\$ 15,394.8		2,679.9	\$,			9.9
EnergyWise	1.95	\$ 35,251.7	\$	16,215.0	\$,			46.6
EnergyWise Multifamily	2.90	\$ 9,975.2	\$	3,106.7	\$ 330.0			12.5
Home Energy Reports	2.61	\$ 6,898.5	\$	2,645.6	\$ -			11.0
ENERGY STAR® Lighting	5.20	\$ 72,498.3	\$	14,068.7	\$ (118.5)			5.3
Residential Consumer Products	2.96	\$ 7,529.3	\$	1,997.8	\$ 546.1			10.0
Residential ConnectedSolutions	1.08	\$ 379.2	\$	350.0	\$ 1			N/A
Energy Efficiency Education Programs			\$	40.0				
Residential Pilots			\$	222.7				
Community Based Initiatives - Residential			\$	121.5				
Comprehensive Marketing - Residential			\$	556.5				
n-Income Eligible Residential SUBTOTAL	3.08	\$ 152,669.8	\$	42,863.9	\$ 4,597.7	\$	2,113.8	10.9
Income Eligible Residential								
Single Family - Income Eligible Services	2.81	\$ 33,740.4	\$	11,995.0	\$ -			28.1
Income Eligible Multifamily	2.91	\$ 10,315.1	\$	3,543.2	\$ -			11.6
Income Eligible Residential SUBTOTAL	2.70	\$ 44,055.6	\$	15,538.3	\$ -	\$	776.6	21.2
Commercial & Industrial								
Large Commercial New Construction	6.71	\$ 38,055.6	\$	5,214.8	\$ 457.4			3.4
Large Commercial Retrofit	6.34	\$ 248,646.7	\$	24,230.2	\$ 14,142.6			4.4
Small Business Direct Install	2.92	\$ 28,488.2	\$	6,900.5	\$ 2,129.3			7.5
Commercial ConnectedSolutions	4.39	\$ 7,192.0	\$	1,637.1	\$ -			N/A
Commercial Pilots			\$	197.9				
Community Based Initiatives - C&I			\$	40.1				
Finance Costs			\$	-				
RI Infrastructure Bank			\$	5,000.0				
C&I SUBTOTAL	5.07	\$ 322,382.5	\$	44,766.1	\$ 16,729.3	\$	2,146.6	5.3
Regulatory								
OER			\$	1,043.4				
EERMC			\$	818.4				
Regulatory SUBTOTAL			\$	1,861.7				
TOTAL	3.95	\$ 519,107.8	\$	105,029.9	\$ 21,327.0	\$	5,037.0	7.5

Notes:

 $(1) \ RI \ Test \ B/C \ Test = (Energy + Capacity + Resource \ Benefits + Economic \ Benefits + Carbon \ Benefits) \ / \ (Program \ Implementation + Customer \ Contribution + Shareholder \ Incentive)$

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table E-3.

Table E-5A National Grid Calculation of 2019 Program Year Cost-Effectiveness with TRC Test All Dollar Values in (\$000)

	TRC		Program			
	Benefit/	Total	Implementation	Customer	Shareholder	¢/Lifetime
	Cost ¹	Benefit	Expenses ²	Contribution	Incentive	kWh
Non-Income Eligible Residential			1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		22,7,22
Residential New Construction	1.17	\$1,009.3	\$ 859.4	\$ 426.7		\$ 8.4
ENERGY STAR® HVAC	1.42	\$5,051.7	\$ 2,679.9	\$ 1,576.0		\$ 9.9
EnergyWise	1.24	\$22,520.2	\$ 16,215.0	\$ 1,837.4		\$ 46.6
EnergyWise Multifamily	1.62	\$5,759.7	\$ 3,106.7	\$ 330.0		\$ 12.5
Home Energy Reports	0.79	\$2,064.0	\$ 2,645.6	\$ -		\$ 11.0
ENERGY STAR® Lighting	1.67	\$14,629.6	\$ 14,068.7	\$ (118.5))	\$ 5.3
Residential Consumer Products	0.94	\$2,132.7	\$ 1,997.8	\$ 546.1		\$ 10.0
Residential ConnectedSolutions						
Energy Efficiency Education Programs			\$ 40.0			
Residential Pilots			\$ 222.7			
Community Based Initiatives - Residential			\$ 121.5			
Comprehensive Marketing - Residential			\$ 556.5			
Non-Income Eligible Residential SUBTOTAL	1.23	\$ 53,167.1	\$ 42,863.9	\$ 4,597.7	\$ 2,113.8	\$ 10.9
Income Eligible Residential				\$ -		
Single Family - Income Eligible Services	2.33	\$ 21,716.5	\$ 11,995.0	\$ -		\$ 28.1
Income Eligible Multifamily	2.27	\$ 5,802.2	\$ 3,543.2	\$ -		\$ 11.6
Income Eligible Residential SUBTOTAL	2.21	\$ 27,518.7	\$ 15,538.3	\$ -	\$ 776.6	\$ 21.2
Commercial & Industrial						
Large Commercial New Construction	3.29	\$ 21,430.4		\$ 457.4		\$ 3.4
Large Commercial Retrofit	2.37	\$ 94,370.7	\$ 24,230.2	\$ 14,142.6		\$ 4.4
Small Business Direct Install	1.02	\$ 9,230.3	\$ 6,900.5	\$ 2,129.3		\$ 7.5
Commercial ConnectedSolutions						
Commercial Pilots			\$ 197.9			
Community Based Initiatives - C&I			\$ 40.1			
Finance Costs			\$ -			
RI Infrastructure Bank			\$ 5,000.0			
C&I SUBTOTAL	1.97	\$ 125,031.5	\$ 44,766.1	\$ 16,729.3	\$ 2,146.6	\$ 5.3
Regulatory						
OER			\$ 1,043.4			
EERMC			\$ 818.4			
Regulatory SUBTOTAL			\$ 1,861.7			
TOTAL	1.71	\$ 205,717.3	\$ 105,029.9	\$ 21,327.0	\$ 5,037.0	\$ 7.5

Notes:

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Customer Contribution + Shareholder Incentive) Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table E-3.

Table E-6 National Grid Summary of 2019 Benefits and Savings by Program

ENERGY STAR® HVAC \$15. EnergyWise \$35. EnergyWise Multifamily \$9.	1 (4,743 5,395 5,252 9,975 6,899		Capacity DRIPE \$163 \$873 \$1,632	Capacity Trans \$178 \$1,022 \$912	Dist \$154 \$889	Reliability \$1	Winte Peak	er Off Peak	Benefi Energy Sumr Peak	ner Off Peak	Energy DRIPE		Non E	lectric			Societal		Load Reduction	on in kW	MWh	Saved	MMBtt	ı of Oil
Non-Income Eligible Residential Residential New Construction S4, ENERGY STAR® HVAC \$15, EnergyWise \$35, EnergyWise Multifamily \$9,	5,395 5,252 59,975	\$140 \$803 \$730	\$163 \$873	Trans \$178 \$1,022	\$154		Peak		Sumr				Non E	lectric			Societal							
Non-Income Eligible Residential Residential New Construction \$4, ENERGY STAR® HVAC \$15, EnergyWise \$35, EnergyWise Multifamily \$9,	5,395 5,252 59,975	\$140 \$803 \$730	\$163 \$873	\$178 \$1,022	\$154		Peak																	
Non-Income Eligible Residential Residential New Construction \$4, RENERGY STAR® HVAC \$15, EnergyWise \$35, EnergyWise Multifamily \$9,	5,395 5,252 59,975	\$140 \$803 \$730	\$163 \$873	\$178 \$1,022	\$154			Off Peak	Peak	Off Peak	DRIBE													
Residential New Construction \$4, ENERGY STAR® HVAC \$15, EnergyWise \$35, EnergyWise Multifamily \$9,	5,395 5,252 9,975	\$803 \$730	\$873	\$1,022		\$1	\$152					Natural Gas	Oil	Other Resource N	on Resource	Carbon	NOx	Economic	Summer	Winter	Annual	Lifetime	Annual	Lifetime
ENERGY STAR® HVAC \$15, EnergyWise \$35, EnergyWise Multifamily \$9,	5,395 5,252 9,975	\$803 \$730	\$873	\$1,022		\$1	6162																	
EnergyWise \$35, EnergyWise Multifamily \$9,	5,252 9,975	\$730			\$889		\$133	\$203	\$335	\$216	\$427	\$0	\$421	\$580	\$34	\$1,075	\$32	\$632	118	395	882	15,377	713	17,827
EnergyWise Multifamily \$9,	9,975		\$1,632	6012		\$3	\$938	\$860	\$413	\$294	\$1,500	\$1,051	\$1,367	-\$19	\$75	\$3,124	\$160	\$2,041	633	15,005	2,897	42,890	3,354	59,650
		\$228		\$912	\$793	\$6	\$1,003	\$853	\$326	\$182	\$2,155	\$0	\$10,048	\$21	\$1,129	\$5,911	\$377	\$9,173	1,273	1,547	8,068	38,759	21,737	433,608
	6.899		\$407	\$301	\$262	\$1	\$725	\$629	\$173	\$140		\$0	\$288	\$39	\$2,132	\$1,870	\$46	\$1,191	295	812	3,592	27,396	734	12,530
Home Energy Reports \$6,		\$0	\$6	\$454	\$395	\$55	\$572	\$465	\$172	\$152	\$1,124	\$0	\$0	\$0	\$0	\$1,646	\$32	\$1,824	4,278	5,860	24,130	24,130	-	-
	2,498	\$2,311	\$7,949	\$3,212	\$2,793		\$7,666	\$3,817	\$2,896	\$1,366		-\$2,631	-\$3,384	-\$1,256	\$3,148	\$16,017	\$59	\$8,246	5,766	7,413	49,606	262,766	(32,221)	(170,880)
Residential Consumer Products \$7,	7,529	\$310	\$767	\$430	\$374	\$3	\$481	\$455	\$289	\$236	\$1,549	\$15	\$35	\$136	\$0	\$1,667	\$35	\$749	556	504	3,484	25,410	76	1,520
Non-Income Eligible Residential SUBTOTAL \$152,	2,291	\$4,523	\$11,797	\$6,510	\$5,661	\$95	\$11,539	\$7,281	\$4,604	\$2,586	\$28,560	-\$1,565	\$8,776	-\$499	6,517	31,310	740	23,856	12,919	31,537	92,658	436,729	(5,607)	354,255
Income Eligible Residential																								
	3,740	\$824	\$1,225	\$1,073	\$933	\$4	\$711	\$646	\$668	\$425		\$40	\$4,315	\$385	\$9,566	\$4,157	\$196	\$6,848	889	452	3,771	42,714	9,707	186,817
Income Eligible Multifamily \$10,	0,315	\$217	\$308	\$278	\$242	\$1	\$765	\$671	\$214	\$196	\$1,381	\$0	\$350	\$29	\$2,281	\$2,066	\$52	\$1,263	223	602	3,219	30,589	1,006	15,424
Income Eligible Residential SUBTOTAL \$44,	4,056	\$1,042	\$1,534	\$1,351	\$1,175	\$5	\$1,477	\$1,316	\$882	\$621	\$3,102	\$40	\$4,665	\$414	11,848	6,224	248	8,111	1,112	1,054	6,990	73,304	10,713	202,241
Commercial & Industrial																								
Large Commercial New Construction \$38,	8,056	\$1,719	\$1,886	\$2,189	\$1,903	\$6	\$3,538	\$2,506	\$2,276	\$1,517	\$5,574	\$845	\$0	\$0	\$1,544	\$10,470	\$268	\$1,813	1,368	777	10,597	167,498	-	-
Large Commercial Retrofit \$248,	8,647	\$11,306	\$17,320	\$15,034	\$13,073	\$59	\$18,340	\$14,552	\$11,533	\$7,256		-\$3,189	\$0	\$0	\$30,403	\$56,000	\$906	\$18,473	12,562	14,183	71,771	880,853	-	-
Small Business Direct Install \$28,	8,488	\$946	\$1,386	\$1,250	\$1,087	\$5	\$3,236	\$2,024	\$1,267	\$742	\$5,446	-\$822	\$0	\$0	\$0	\$7,701	\$100	\$4,121	1,005	983	10,021	120,249	-	-
C&I SUBTOTAL \$315,	5,191	\$13,970	\$20,592	\$18,473	\$16,062	\$71	\$25,114	\$19,083	\$15,076	\$9,515	\$48,602	-\$3,166	\$0	\$0	31,947	74,171	1,274	24,407	14,935	15,943	92,389	1,168,600	-	•
TOTAL \$511.	1.537	\$19,535	\$33,923	\$26,335	\$22,898	\$171	\$38,130	\$27,680	\$20,562	\$12,723	\$80,264	-\$4,691	\$13,441	-\$85	50,311	111,705	2,262	56,373	28,967	48,534	192,036	1.678.632	5.106	556,496

Table E-6A National Grid Summary of 2019 Demand Response Benefits and Savings

		Benefits (000's)												Saved
				Capacity				Energy		Non Electric	Societal			
		Summer Capacity Summer Energy										1		
	Total	Generation	DRIPE	Trans	Dist	Reliability	Peak	Off Peak	DRIPE	Non Resource	Carbon	Summer	Annual	Lifetime
Non-Income Eligible Residential														
Residential ConnectedS	\$379	\$0.32	\$5.4	\$187	\$163	\$23	\$0.17	\$0.11	\$0.15	\$0	\$0.25	1,763	8	8
Commercial & Industrial														
Commercial Connected:	ed: \$7,192 \$0.11 \$1.8 \$3,612 \$3,140 \$438 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00										\$0.00	34,000	0	0
TOTAL	\$7,571 \$0 \$7 \$3,799 \$3,303 \$460 \$0 \$0 \$0 \$0 \$0 \$									\$0	35,763	8	8	

Table E-7 National Grid Comparison of 2019 and 2018 Goals

		Proposed	1 2019		Approve	ed 2018	Differ	ence
		Annual				Annual		Annual
	Annual	Energy	Demand	Planned	Annual	Energy	Annual	Energy
	Demand	Savings	Response	Unique	Demand	Savings	Demand	Savings
	Savings (kW)	(MWh)	(kW)	Participants	Savings (kW)	(MWh)	Savings (kW)	(MWh)
Non-Income Eligible Residential								
Residential New Construction	118	882		501	49	619	69	263
ENERGY STAR® HVAC	633	2,897		1,794	433	2,091	200	806
EnergyWise	1,273	8,068		10,000	286	6,157	987	1,911
EnergyWise Multifamily	295	3,592		6,000	329	4,207	-34	-616
Home Energy Reports	4,278	24,130		213,750	3,325	25,054	952	-924
ENERGY STAR® Lighting	5,766	49,606		292,150	4,413	38,891	1,352	10,714
Residential Consumer Products	556	3,484		9,682	429	2,849	127	635
Residential ConnectedSolutions			1,763				N/A	N/A
Non-Income Eligible Residential SUBTOTAL	12,919	92,658	1,763	533,877	9,264	79,868	3,655	12,790
Income Eligible Residential								
Single Family - Income Eligible Services	889	3,771		2,750	696	4,185	193	-414
Income Eligible Multifamily	223	3,219		4,800	170	3,287	54	-68
Income Eligible Residential SUBTOTAL	1,112	6,990		7,550	865	7,472	247	-482
Commercial & Industrial								
Large Commercial New Construction	1,368	10,597		139	1,728	13,959	-360	-3,362
Large Commercial Retrofit	12,562	71,771		2,193	11,910	75,616	652	-3,845
Small Business Direct Install	1,005	10,021		565	1,034	9,940	-29	80
Commercial ConnectedSolutions	Í	ĺ	34,000		ĺ	Í	N/A	N/A
C&I SUBTOTAL	14,935	92,389	34,000	2,897	14,673	99,515	263	-7,127
TOTAL	28,967	192,036	35,763	544,324	24,802	186,855	4,165	5,181

⁽¹⁾ Planned 2018 participation takes into account net-to-gross and estimates unique participation by taking into account 2017 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the estimated participants shown. For measure counts please view the widget tables in Attachments 1 and 2. Table E-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.

 $[\]ensuremath{\text{(2)}}\ There \ are \ additional \ Low \ Income \ participants \ in \ Residential \ New \ Construction.$

⁽³⁾ A customer can participate in more than one program, for example, ENERGY STAR® Lighting and Home Energy Reports, therefore the population reached can be more than 100%.

⁽⁴⁾ Beginning in 2017, Home Energy Reports participation was counted as the number of customers receiving reports (i.e., the "treatment group") adjusted by the "Read Rate" of 75% from the most recent Customer Engagement Tracker Survey.

Table E-8
National Grid
Avoided Costs Used in 2019 Benefit-Cost Model

			Rhode Is	land			DRIPE	for Installa	ations in 201	19
	Winter Peak Energy	Winter Off- Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value Weighted Avg	Winter Peak Energy	Winter Off- Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value Weighted Avg
Units:	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr
Period:					-					-
2019	0.062	0.057	0.042	0.038	88.02	0.06	0.04	0.04	0.03	402.36
2020	0.064	0.061	0.049	0.043	64.99	0.09	0.07	0.07	0.05	503.53
2021	0.067	0.061	0.056	0.047	52.74	0.10	0.08	0.09	0.06	90.61
2022	0.063	0.057	0.052	0.042	50.68	0.10	0.07	0.09	0.06	68.43
2023	0.064	0.057	0.049	0.039	56.80	0.09	0.06	0.07	0.04	45.49
2024	0.068	0.063	0.048	0.044	62.68	0.07	0.05	0.05	0.04	12.05
2025	0.063	0.060	0.050	0.045	70.91	0.05	0.04	0.04	0.03	267.40
2026	0.063	0.059	0.054	0.047	80.87	0.04	0.03	0.03	0.02	364.34
2027	0.068	0.064	0.051	0.045	89.45	0.02	0.01	0.02	0.01	424.20
2028	0.070	0.062	0.055	0.045	95.69	0.01	0.01	0.01	0.01	416.70
2029	0.072	0.066	0.054	0.046	102.17					321.20
2030	0.066	0.062	0.057	0.052	97.66					177.02
2031	0.065	0.061	0.052	0.045	95.69					102.18
2032	0.065	0.060	0.054	0.046	102.17					48.04
2033	0.070	0.061	0.054	0.045	97.66					11.66
2034	0.069	0.058	0.058	0.046	95.69					
2035	0.071	0.064	0.064	0.054	102.17					
2036	0.072	0.064	0.067	0.057	103.86					
2037	0.074	0.065	0.071	0.060	105.57					
2038	0.076	0.066	0.075	0.063	107.32					
2039	0.078	0.067	0.079	0.066	109.09					
2040	0.079	0.068	0.084	0.069	110.89					
2041	0.082	0.069	0.088	0.073	112.72			·		
2042	0.084	0.070	0.093	0.077	114.58					
2043	0.086	0.071	0.099	0.081	116.47					
2044	0.089	0.073	0.105	0.085	118.40					
2045	0.091	0.075	0.111	0.090	120.35					
2046	0.095	0.077	0.118	0.095	122.34					
2047	0.098	0.079	0.125	0.101	124.36					
2048	0.102	0.082	0.133	0.107	126.41					

Source:

AESC 2018 Study , Appendix B, in 2018 dollars

Table E-9 National Grid 2019 Targeted Shareholder Incentive

Energy Incentive Rate: 3.50%

	(1)	(2)	(3)	(4)	(5)
		Target			Target
	Spending Budget	Incentive	Annual kWh	Threshold	Incentive Per
Sector	\$(000)	\$(000)	Savings Goal	kWh Savings	kWh
Income Eligible Residential	\$15,538	\$544	6,989,899	5,242,424	\$0.078
Non-Income Eligible Residential	\$42,291	\$1,480	92,658,070	69,493,553	\$0.016
Commercial & Industrial	\$41,386	\$1,448	92,388,510	69,291,383	\$0.016
Total	\$99,215	\$3,473	192,036,480	144,027,360	\$0.018

Demand Incentive Rate: 1.50%

	-10 0 / 0				
	(6)	(7)	(8)	(9)	(10)
		Target			Target
	Spending Budget	Incentive	Annual kW	Threshold kW	Incentive Per
Sector	\$(000)	\$(000)	Savings Goal	Savings	kW
Income Eligible Residential	\$15,538	\$233	1,112	834	\$209.5
Non-Income Eligible Residential	\$42,291	\$634	12,919	9,689	\$49.1
Commercial & Industrial	\$41,386	\$621	14,935	11,202	\$41.6
Total	\$99,215	\$1,488	28,967	21,725	\$51.4

Notes:

- (1) and (6) Eligible Spending Budget excludes Commitments, Regulatory Costs, Pilots, and Shareholder Incentive. See Table E-3 for details.
- (2) Equal to the incentive rate (3.5%) x Column (1).
- (3) and (8) See Table E-7
- (4) and (9) 75% of Column (3). No incentive is earned on annual kWh savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)*1000/Column (3). This illustration is for achieved savings equal to the savings target. The incentive earned per kWh will vary with the percent of the savings target achieved
- (7) Equal to the incentive rate (1.5%) x Column (1).
- (10) Column (7)*1000/Column (8). This illustration is for achieved savings equal to the savings target. The incentive earned per kW will vary with the percent of the savings target achieved

The shareholder incentive for Energy and Demand incentives will be calculated as follows, where SB is the Spending Budget in the sector:

- From 75% of savings to 100% of savings: Shareholder Incentive = SB x (0.15 x % of savings achieved 0.10)
- x 0.7 for electric energy savings
- x 0.3 for electric demand savings
- x 1.0 for natural gas savings
- From 100% of savings to 125% of savings: Shareholder Incentive = SB x (0.05 x % of savings achieved)

Table E-10 National Grid Revolving Loan Fund Projections

		Large C&I Revolving Loan Fund				Small Business Revolving Loan Fund			
((1)	Total Loan Fund Deposits Through 2017	\$	21,979,678	(1)	Total Loan Fund Deposits Through 2017	\$	4,658,971	
((2)	Current Loan Fund Balance	\$	14,439,704	(2)	Current Loan Fund Balance	\$	2,747,899	
		Loans Paid Year-	\$	5,377,709		Loans Paid Yea	\$	1,518,374	
		Repayments Year	\$	2,429,390		Repayments Ye	\$	1,805,496	
((3)	Projected Additional Loans by Year End 2017	\$	5,994,473	(3)	Projected Additional Loans by Year End 2017	\$	1,718,084	
(4)	Projected Additional Repayments by Year End 201	\$	1,388,223	(4)	Projected Additional Repayments by Year End 201'	\$	902,748	
((5)	Projected Year End Loan Fund Balance 2017	\$	9,833,453	(5)	Projected Year End Loan Fund Balance 2017	\$	1,932,563	
((6)	2018 Fund Injection	\$		(6)	2018 Fund Injection	\$	_	
(7)	Projected Loan Fund Balance, January 2018	\$	9,833,453	(7)	Projected Loan Fund Balance, January 2018	\$	1,932,563	
((8)	Projected Repayments throughout 2018	\$	3,929,654	(8)	Projected Repayments throughout 2018	\$	2,000,000	
(9)	Estimated Loans in 2018	\$	11,000,000	(9)	Estimated Loans in 2018	\$	2,800,000	
(10)	Projected Year End Loan Fund Balance 2018	\$	2,763,107	(10)	Projected Year End Loan Fund Balance 2018	\$	1,132,563	
((1)	Public Sector Revolving Loan Fund Total Loan Fund Deposits Through 2017	\$	1,562,529					
(2)	Current Loan Fund Balance	\$	712,259					
Ì	/	Loans Paid Year-	\$	-					
		Repayments Year	\$	229,074					
(3)	Projected Additional Loans by Year End	\$	18,003					
(4)	Projected Additional Repayments by Year End	\$	114,537					
(5)	Projected Year End Loan Fund Balance	\$	808,793					
((6)	2018 Fund Injection	\$	-					
(7)	Projected Loan Fund Balance, January 2018	\$	808,793					
((8)	Projected Repayments throughout 2018	\$	305,000					
,	9)	Estimated Loans in 2018	\$	-					
((10)	Projected Year End Loan Fund Balance 2018	\$	1,113,793					

Notes

- 1 Funding injections since loan funds began.
- Current Loan Fund Balance is through August 2017; it includes all loans and repayments made by August 2017. Public Sector Revolving Loan Fund reduced by transfers to RI PEP
- 2 Incentives
- Projected Loans from September to Year-End 2017 is estimated based on projects currently under construction that are anticipated to be paid out by year-end. It is difficult to
- 3 project this amount accurately due to the fact that projects could be delayed by a month or two resulting in payment occurring in 2018 instead of 2017.
- 4 Projected Repayments from September to Year-End 2017 is estimated based on the monthly average amount of repayments
- 5 Equal to (2) (3) + (4)
- 6 Proposed 2018 Fund Injection detailed on Table E-2
- 7 Equal to (5) + (6)
- 8 Assumption based on monthly average repayments in 2017 over 12 month period; repayments accumulate over time and may vary widely.
- 9 Amount projected to be lent to customers in 2018
- 10 Equal to (7) + (8) (9)